

What is Claimed Is:

1. A stent delivery system for delivering a stent to a deployment site in a body lumen of a patient's body, said stent delivery system comprising:
  - an elongated, flexible, hollow outer tubular member having a distal end and a proximal end;
  - an elongated, flexible, inner tubular member having a distal end and a proximal end;
  - said outer tubular member sized to be passed through said body lumen with said distal end advanced to said deployment site and with said proximal end external to said body for manipulation by an operator;
  - said inner tubular member sized to be received within said outer tubular member with said inner tubular member and said outer tubular member axially slideable relative to one another between a transport position and a deploy position;
  - said inner tubular member having a stent attachment location at said distal end of said inner tubular member, said stent attachment location covered by said outer tubular member when said inner and outer tubular members are in said transport position, said stent attachment location exposed when said inner and outer tubular members are in said deploy position;
  - a spacer member disposed between said inner tubular member and said outer tubular member with said spacer member spacing said inner tubular member from said outer tubular member;
  - opposing surfaces of said inner and outer tubular members defining a first lumen extending from said proximal end towards said distal end of said outer tubular member;
  - an admission port in communication with said first lumen at proximal end of said outer tubular member; and
  - a discharge port through said outer tubular member in communication with first said lumen at said distal end of said outer tubular member.

2. A stent delivery system according to claim 1 wherein said spacer member is a longitudinal spacer member extending substantially an entire length from said proximal end of said outer tubular member to said stent attachment location.
3. A stent delivery system according to claim 1 wherein said spacer member is disposed to maintain said inner tubular member centrally positioned within said outer tubular member.
4. A stent delivery system according to claim 1 wherein said spacer member is a plurality of splines carried on said inner tubular member and extending radially outwardly towards said outer tubular member and extending linearly along a length of said inner tubular member.
5. A stent delivery system according to claim 1 wherein said inner tubular member is hollow to track over a guide wire.
6. A stent delivery system according to claim 1 further comprising a stent carried at said stent attachment location.
7. A stent delivery system according to claim 1 further comprising a first handle rotatably connected to said proximal end of said outer tubular member.
8. A stent delivery system according to claim 1 further comprising a second handle rotatably connected to said proximal end of said inner tubular member.
9. A stent delivery system according to claim 1 comprising a locking member for fixing a relative axial position between said inner tubular member and said outer tubular member.